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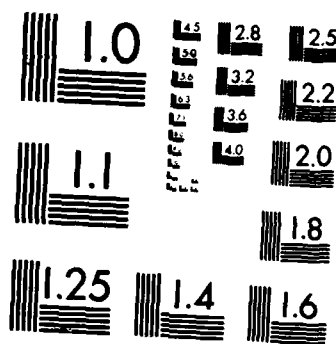NATIONAL BUREAU OF STANDARDS-1963-A

THE USE OF COMMAND AND CONTROL TO ENHANCE AGILITY AND ACHIEVE SYNCHRONIZATION ON THE AIRLAND BATTLEFIELD

by

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This monograph asks the question: How does a commander at the operational level command and control his forces to achieve synchronization?

The lessons of history suggest that the threads common to successful command and control can be identified. Perhaps these lessons hold clues for operational commanders both now and in the future. Each of the illustrative examples demonstrates that successful operational synchronization can be achieved through effective command and control.

The common threads identified from the illustrative examples of Napoleon, the Prusssian/German General Staff system, Field Marshal Erwin Rommel and Field Marshal William Slim include: a clear commander's intent, flexibility, tactical proficiency, the innovative use of assets, stability, forward command, unity of effort and simplicity, resulting in a common cultural bias. How these threads were applied by the United States in the Vietnam Conflict and the Iranian Rescue Mission is next examined. This monograph states that most of these threads were violated in each of these illutrative examples. That these violations occurred

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This monograph recommends that the United States build a system of command and control based upon a stable, yet flexible common cultural bias, incorporating both the positive and negative lessons of history.

This mongraph concludes that effective command and control, based upon stable, compatible doctrine, will lead to a common cultural bias which will enhance unity of effort, and thus, the nation's defense.

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ABSTRACT

THE USE OF COMMAND AND CONTROL TO ENHANCE AGILITY AND ACHIEVE
    SYNCHRONIZATION ON THE AIRLAND BATTLEFIELD, by Major Henry
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INTRODUCTION

Clausewitz states that "War is ... an act of force to compel the enemy to do our will."[1] A commander must be able to use the force available to him, in a proper combination, to compel the enemy to do his will. The complexity of warfare demands that the combined efforts of a multitude of assets must be coordinated and brought to bear at the appropriate time and place to achieve the desired results. This orchestration, or synchronization, can only be achieved by effective command and control.

Friction, another Clausewitzian concept, keeps things from happening according to plan. This phenomenon, as well as an uncooperative enemy, contributes to the chance factor in war, which keeps conditions uncertain. Simply said, friction can be the application of Murphy's Law, "If anything can go wrong, it will." Friction can also result from the inertia that can set in, even when things appear to be going well. An example of inertia is the commander waiting for just one more piece of information prior to making a decision. The commander must have a means for coping with changes in the enemy and friendly situations, and for dealing with friction and inertia as well. The commander uses command and control to overcome the effects of friction and an uncooperative enemy.

Effective command and control enables the commander to do several things. First, he can diminish uncertainty about the friendly and enemy situations. He can also address the effects of friction. Equally important, the commander uses command and control to influence the action of his subordinates. If a commander has reasonable certainty about the enemy and friendly situations, and a simultaneous grip on the effects of friction on both his own and the enemy forces, he is able to influence the battle in a positive manner. By synchronizing his forces, the commander gains or maintains the initiative, forcing the enemy commander to react to him and ultimately conform to his will.

Overcoming the effects of friction also allows the commander greater agility. Agility is "the ability of friendly forces to act faster than the enemy."[2] Agility insures flexible mission execution within the framework of the commander's intent. However, subordinates must not be locked in to a specific plan, nor must they be given complete freedom of execution. The subordinates are given wide latitude to accomplish their mission, but only when the situation does not conform to the original plan.

Command and control is a concept which "is as old as war itself."[3] However, it is not always clearly understood by the student of military art and science. As the size and complexity of military forces has grown, command and control of these forces

has become much more difficult. A small force was easier to command and control since the commander could personally see most of the situation as it developed. As a result, the commander was both omnipresent and omniscient. Because his information needs were sufficiently filled he had both the knowledge and the time to cope with the effects of friction and inertia.

As times changed, improved technology caused changes in weapons, tactics, doctrine, and command and control. With the increase in size and complexity of forces, the commander has been given additional means to command and control his forces. However, increased complexity in forces has also brought about more complex command and control requirements. Staffs, equipment, and education have increased the commander's knowledge, but the increased tempo and breadth of operations has reduced the time available to react to changes in the situation. This has often resulted in one or both of two phenomena: increased situational uncertainty and the desire for more certainty. Either of these can paralyze command and control, and, with it, agility and synchronization.

The terms "command," "control," and "command and control" have been used to explain different types of activities. Even the doctrinal manuals do not always clearly define the terms. This contributes to the overall problem, rather than the solution. Notwithstanding this phenomenon, for the purpose of this monograph, the terms will be used with the following

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definitions:

Command: A process by which the will and   intent
of the commander is infused among subordinates.   This
process   is   directive;   its   premise   is   reliable
subordinate behavior.[4]

Control: A process by which subordinate behavior
inconsistent with the will and intent of the commander
is   identified   and   corrected.   This   process   is
regulatory;   its premise is unreliable subordinate
behavior.[5]

(Note: The   term   "unreliable"   implies   imperfection,   not

disobedience.)

Command   and   control: [the   ability   to]   ...
synchronize   and   coordinate   combat   power   on   the
battlefield and provide direction to the fight.[6]

Command and control is much more than the sum of the terms

"command" and "control."   It is also more than ordering units

around the battlefield and checking to see that they moved. Some

often think of "command and control" being synonymous with

"communications."   Command and control is more than this.   It is

the key to both agility and synchronization, the essence of the

principle of war, Unity of Command, and its related AirLand

Battle imperative, Unity of Effort.[7] Communications is the means

by which a commander imposes command and control on his forces.

Unity of Command "ensures that all efforts are focused on a

common goal."[8] By focusing toward a common goal, the force as a

whole brings maximum combat power to bear at the decisive point,

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and avoids wasting precious assets on non-critical events.

The quality of command and control is strongly affected by the commander's ability to approach certainty. The more certain he is, the better his decisions and actions will be. Ideally, this will result in timely actions which will give subordinate commanders an increased certainty about their own situation and more time to take or not take action. The commander is constantly fighting the inherent friction and tension which exists between the need for certainty and the desire for timely, rapid decisions and actions. If the commander is able to balance "command," "control," and "command and control," he can focus his efforts on the areas in which he needs more certainty. He can let other, more certain, or less certain but also less critical, areas work within the framework of his intent.

The commander is also concerned with synchronization. Synchronization is "the arrangement of battlefield activities in time, space and purpose to produce maximum relative combat power at the decisive point."[3] To achieve synchronization, especially at the operational level, the commander must exercise command and control so as to enable the forces to operate with the maximum possible flexibility and the minimum necessary control. A clear, well-stated, and well-understood commander's intent is essential for synchronization of the force. It enables subordinates to use their own initiative to seize opportunities to achieve the boss's goal without the debilitating and time-wasting effects of

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stopping to seek guidance. Paradoxically, freedom and initiative lead to more effective command and control and greater combat punch. This is accomplished through faster and more powerful subordinate unit contribution. Anything less than a clear, unambiguous commander's intent only increases the uncertainty, which can lead to more friction. Unfortunately, this requirement is not well understood within the US Army. Without synchronization, the commander will not be able to impose his will on the enemy at the time and place of his choosing with the desired relative combat power.

The US Army has promulgated its method of warfighting in Field Manual 100-5, Operations. This method is known as AirLand Battle doctrine. It is to be used by Army forces when conducting operations. However, the Army will rarely fight alone. Joint (with other US forces, i.e., the Marine Corps, Navy and Air Force) and combined (with other allied nations, such as in NATO) operations are now and will continue to be the rule. Synchronization of joint and combined operations is a prerequisite for success at the operational level of war. Whatever doctrine is used, the commander must be able to command and control his forces to bring about the synchronization required for victory.

How does a commander at the operational level command and control his forces to achieve synchronization? The lessons of history suggest that the threads common to successful command and

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control can be identified. These lessons hold clues for our commanders now and in the future as they command and control their forces in order to achieve operational synchronization.

The purpose of this monograph is to determine the common threads of effective command and control at the operational level on the AirLand Battlefield. The hypothesis is that the key features which are common to effective command and control at the operational level can be identified and therefore be utilized by commanders at the operational level.

HISTORICAL REVIEW

Recent operational experience shows that although our armed forces work diligently toward accomplishing the mission, the overall sum of the efforts of these forces is less than it should be. As Colonel Charlie Beckwith has said, "... the parts all performed, but they didn't perform as a team."[10] That is, the synergistic effect of the forces' relative combat power is not being utilized to its maximum extent. Since each element is apparently working effectively, command and control of these forces is a likely reason for the lack of teamwork. The United States'defeat in Vietnam and the Iranian Rescue Mission disaster highlight several serious shortcomings in the command and control of US forces in joint and combined operations. An unwieldy decision cycle, both slow in time and burdened with too many participants contributed to creating well-intentioned but unsynchronized armed forces. Vested and often parochial service interests, political considerations, and often conflicting or incompatible doctrine and tactics, techniques, and procedures have all contributed to poor synchronization. A catastrophic failure was the result in each case.

The history books are full of good and bad examples of commanders' attempts to synchronize their forces through

effective command and control. The limitations of space preclude a thorough examination of all but a few of the many examples of this phenomenon. How did the great commanders of the past command and control their forces to achieve synchronization?

Napoleon was the first modern[11] commander to achieve effective command and control. He synergized the cumulative effects of several often disparate activities and functions. This ability came from an effective command and control system, which enabled him to synchronize his forces on the battlefield. Despite his ultimate defeat, he was the quintessential operational artist. The Jena campaign in 1806 provides an example of his skill.

Napoleon's intent was both well written and succinct. He said:

> It is my intention to concentrate all my forces on my extreme right, leaving all the country between the Rhine and Bamberg completely uncovered, in such a way as to have almost 200,000 men united on the battlefield. If the enemy [assumed to be moving slowly from Erfurt] sends detachments into the area between Mainz and Bamberg I shall not be bothered, since my line of communications goes back to Forcheim, which is a little fortress close to Wurzburg...[The enemy, who does not know this] believes my left to be on the Rhine and my right on the Bohemian border, and that my line of operations is thus parallel to my front; he may therefore try to attack my left, in which case I shall throw him into the Rhine.[12]

He also had a force structure well suited to support his overall plans. The "Corps d'Armee" system enabled corps

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commanders to move their large forces on separate routes to the
battle. At or near the decisive point on the battlefield, the
corps would converge, normally overwhelming the enemy. This
innovation was important since the large masses of troops and
horses consumed vast quantitites of supplies, usually provided by
foraging parties en route. The ability to operate on separate
routes enabled larger armies to be supported. The ability to
converge achieved overwhelming synchronization. Opponents had
not mastered these techniques at the time of Jena.

Since his subordinate commanders were spread out over a
large area, Napoleon had to allow a great deal of flexibility in
the detailed implementation of his orders. The orders:

> told the marshals only where to go, what to do once
> they got there ('once at Hof, your first concern is to
> establish communications with Lobenstein, Ebersdorf,
> and Schleiz') and, in general, instructed them to pass
> on any intelligence and keep at hand as many supplies
> as possible.[13]

Often the marshals would operate for days without new
orders.[14] Since they could do this, Napoleon could concentrate
on the most pressing activities of the time, and not have to
worry about what each of the eight subordinate corps were up to.

One of the reasons for this was stability. Each of the
marshals was hand-picked by Napoleon. He knew each of them very
well, and each had served the Emperor for many years in many
different capacities. There was no pressure at all to move

people from job to job. Vacancies were filled normally by the "dead man's shoes" principle. Officers stayed in their jobs until someone senior was killed in battle, then they moved up to take his place.

There were other kinds of stability as well. Doctrine, tactics, techniques, and procedures were relatively stable. By the time of the Jena campaign, Napoleon had an army that was expert in its tactics, techniques, and procedures, mostly because of experience in previous campaigns. Commanders knew the capabilities of the combined arms of artillery, infantry, and cavalry. They knew the strengths and weaknesses of each, and were able to predict to a certain degree what each arm was going to do, based upon experience.

Napoleon also was blessed with a competent staff. Not only were the people well organized and trained, but the system of reports and communications enhanced rather than detracted from the capabilities of the staff. The Emperor required his marshals to "send [him] news frequently."[15] He also used a group of trusted, hand-picked aides as "directed telescopes." The aides would go to a certain area, gather information, transmit the Emperor's instructions, and return to Napoleon rapidly. The aides acted as an extension of the Emperor's eyes in order to see the battlefield and increase certainty.

That Napoleon was able to receive and transmit information

in a timely manner was also a function of his location on the battlefield. He was always at or near the decisive point, and informed his marshals of his location. The Napoleonic "Main Command Post" was rearward, but the emperor was the "Tactical Command Post," consistently well forward.

Perhaps the most important result of this system of command and control is that on average during the Jena campaign, it took only four hours for a corps to receive and then execute a change of mission from Napoleon.[16] Speed in execution enabled Napoleon continuously to act faster than the enemy, i.e., inside the enemy's decision cycle. Agility is the key to acting inside the enemy's decision cycle and is required for successful maneuver warfare.

The synergistic effect of Napoleon's command and control system enabled him to synchronize his army more rapidly and effectively than the Prussians at Jena. Strong personal leadership, an effective command and control system, and a common cultural bias among subordinates brought victory to Napoleon. By marching to the sound of the guns, Napoleon and his divergent corps were able to converge upon the enemy at the decisive point. Each knew where the action was. Napoleon knew because he was a genius. His subordinates knew because Napoleon's command and control system worked.

One of the many reasons for Napoleon's downfall was that his

enemies learned from their conqueror. The best students were probably the Prussians, who developed a similarly effective command and control system, founded upon the General Staff. This system is, in some respects, still used by the West German Bundeswehr.

Part of the reason for the Prussian defeat at Jena was a breakdown in command and control and its resultant effect on the agility and synchronization of the Prussian forces. Following this defeat the Prussians, primarily under Scharnhorst and Gneisenau, revised their staff officer education and training programs.

Although it took time for the reforms to take place, the Prussian General Staff system paid great dividends in 1870 when, under the command of Moltke, the Prussian Army thoroughly thrashed the French, revenging the 1806 debacle. The new Prussian command and control system resulted in rapid operational synchronization. There were many reasons for this. These included fifty years of stable, compatible doctrine, stability in appointments to duty positions (the General Staff) and the use of relatively stable tactics, techniques, and procedures.

The Prussian General Staff evolved into the German General Staff after the Franco-Prussian War. It continued to achieve more effective command and control of its forces than most of its real or potential adversaries. World War I was not lost because

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of a lack of operational agility or battlefield synchronization. It was instead a lack of resources and national will which led to the Armistice in 1918. The strength of the General Staff system proved itself once again in the aftermath of the war by establishing the infrastructure to overcome the severe limitations imposed upon Germany by the Versailles Treaty.

The General Staff system was able, in spite of all the restrictions of Versailles, to establish the basis of the new German Army (and Air Force and Navy). It did this by maximizing the common cultural bias which had developed since the days of Scharnhorst. The greatest strength of this was the speed by which things were accomplished once rearmament began in the mid thirties. With this type of command and control, the German war machine was able to exploit weaknesses in their enemies until, once again, the rest of the world learned how to stop a conqueror.

Field Marshal Erwin Rommel's performance during the North Africa campaign is an example of the results of the German system of command and control. Because he was not a General Staff officer and did not have the "proper" schooling and training, Rommel was held in low esteem by some of his brother generals.[17] Although he was not considered an operational genius, his tactical victories, based upon the common cultural bias of the German way of war, made him as famous as any other general, on either side, during World War II.

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Rommel was given a clear mission by Hitler: operational and strategic defense in North Africa. Rommel talked his superiors into being allowed to conduct "reconnaissance" as part of his overall defensive mission. However, he fully intended to "depart from my instructions to confine myself to a reconnaissance and to take the command at the front into my own hands as soon as possible."[1a] Thus, his intent was clear to all: he was going to command his "Afrika Korps" well forward, and conduct offensive operations.

Rommel was able to command well forward, often at the point of the leading elements, because he had a reliable, efficient staff working both in the rear and forward. He also was able to issue succinct orders to his subordinates, which they were then able to execute with great freedom, as long as they stayed within the overall parameters of Rommel's intent. Rommel achieved effective synchronization through his command and control system, which was based on the century-old Prussian/German General Staff system. His ultimate defeat did not result from a lack of battlefield synchronization. Rather, he failed because he refused to consider his logistical limits. Rommel undoubtedly contributed to this operational defeat, but his tactical successes demonstrated the benefits as well as the weaknesses of flexible command and control.

The Prussian/German way of command and control was not the

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only system in use during World War II. The British, steeped in a thousand year history, had similar approaches to operational command and control during the World War II. Field Marshal William the Viscount Slim's Burma campaign exemplifies the right way of achieving operational synchronization through the effective use of command and control.

Slim's intent was twofold: to rebuild a defeated army, and then to defeat the Japanese at their own game, jungle warfare. The first mission was extremely difficult, for Slim took command of a defeated, demoralized army. However, he was able, through strong personal leadership and effective training using a building block approach, to turn the forces given to him into a tough, well-trained army.

The second task was even more difficult. To defeat the Japanese, Slim had to have a clear intent. His intent was to seize and then maintain the initiative by taking the offensive whenever and wherever possible. Slim's command and control system enabled him to do this. By insisting on flexibility on the part of all commanders and staffs, by commanding well forward, by using his assets in an innovative way, and by aggressive tactical execution, Slim synchronized his forces to achieve victory over the Japanese. The common cultural bias of the British and their allies in Burma enabled the forces to be more flexible, and thus agile, than their enemies. In contrast, Slim sums up his opponents as follows:

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The Japanese were ruthless and bold as ants when their
designs went well, but if those plans were disturbed or
thrown out - antlike again- they fell into confusion,
were slow to readjust themselves, and invariably clung
too long to their original schemes.... They were not
prepared to admit that they had made a mistake, that
their plans had misfired and needed recasting.... It
is true that in war determination by itself may achieve
results, while flexibility, without determination in
reserve, cannot, but it is only the blending of the two
that brings final success. The hardest test of
generalship is to hold this balance between
determination and flexibility. In this the Japanese
failed. They scored highly by determination; they
paid heavily for lack of flexibility.[19]

Slim acted faster than his opponent because his command and
control system was based upon a set of parameters which allowed
synchronization of the forces in a more agile manner than the
Japanese.

The preceding examples show that there are common threads
which can be determined. The next section will discuss these
common threads.

DISCUSSION OF ILLUSTRATIVE EXAMPLES I

What are the common threads that enhance effective command and control? They include, first of all, a common cultural bias. This means that the key principals, both commanders and staff officers, share a set of values and beliefs which enable them to behave and act consistently under varying circumstances. By having a common cultural bias, subordinate commanders and staff officers can better predict what the commander would do in the same set of circumstances and execute that desire without waiting for orders. Subordinates also can act without violating unity of effort through their common background and shared approach to problem solving. Common cultural bias cannot, however, be gained overnight, nor even in a short period of time.

Napoleon trained his people over a long period of time. His subordinates knew their Emporer's intent and what he would probably do in various situations. Napoleon also had his trusted aides acting as "directed telscopes" to assist him in command and control of his forces.

Another trait of effective command and control is tactical proficiency at all levels. Each of the successful armies could execute the necessary actions at the tactical level to achieve operational success. When the armies could not execute

tactically, they were defeated. Slim pointed out that he could not expect his army to win when it could not execute the tactics of jungle fighting against the Japanese. However, Slim also corrected his army's tactical deficiency by giving them opportunities to practice and improve their proficiency.

Another common thread is flexibility. This flexibility is based upon a clearly stated and understood commander's intent, combined with a thorough understanding of the enemy and friendly situations. As stated earlier, Slim gave his subordinates much greater flexibility than the Japanese gave to theirs. Over-"control," vice the strength of "command" leads to stifled initiative among subordinates, resulting in a less agile force. Inertia can set in, and friction can become greater, when everybody waits for someone else to act. This can result in disastrous outcomes.

Another thread is the use of standard assets in a non-standard, innovative way. Directed telescopes, used by Napoleon, and "Parajutes"[20] used by Slim are examples of the application of this thread.

Integration of both old and new technology with new staff techniques is another common thread. Napoleon did this with the "corps d'armee" system of force design. The Prussian General Staff's mastery of the integration of rail movements and mobilization under Moltke's leadership is also an example of

integration.   Rommel and Slim both were able to command well

forward as a result of matching the capabilities of their

communications systems to their requirements for forward command.

Why were these commanders able to utilize the common

threads?   First and foremost, they achieved unity of effort.

Relative stability,   in doctrine,   personnel,   and tactics,

techniques,   and procedures allowed more time for development of

the skills required by commanders,   staffs,   individual soldiers,

and units.

Another reason for the attainment of unity of effort,

related to stability,   is simplicity.   Simplicity supports

flexibility in mission accomplishment within the framework of the

commander's intent.

The net result of the synergistic effect of all the threads

is a common cultural bias.   Common cultural bias,   when attained,

facilitates command and control,   and thus,   synchronization.

Napoleon's army,   the Prussian/German General Staff and officer

corps,   and Slim's Burma forces all experienced success at the

operational level.   Much of the success can be attributed

directly to the common cultural bias each group possessed.

Thus far, several common threads have been identified. They

are a clear commander's intent, flexibility, tactical

proficiency, the innovative use of assets, stability, forward

command, unity of effort, and simplicity. The resultant common cultural bias contributed greatly to success in each of the preceding illustrative examples. How these threads applied in two recent illustrative examples involving the United States, Vietnam and Iran, will now be examined.

COMMAND AND CONTROL DURING THE VIETNAM CONFLICT

The United States suffered a defeat in the Vietnam Conflict.
Perhaps the most important reason for this defeat is the lack of
synchronization at the operational level. A disjointed, complex
command and control arrangement contributed to the lack of
synchronization. As a result, US forces often fought a series of
tactical engagements and battles, not linked by an operational
plan to strategic objectives.

The command and control relationship in Vietnam was not
conducive to synchronization at the operational level. The
commander, US Military Assistance Command, Vietnam (COMUSMACV),
although the senior military man on the ground, did not exercise
command and control over all the forces fighting in the Vietnam
area of operations. Because he did not command and control all
these forces, he did not have the final approval over military
operations in the theater. Each of the Specified and Unified
Commands exercised command and control over its own forces.
COMUSMACV therefore often had little input into or influence on
many of the operations in Vietnam.

Most observers perceived COMUSMACV as the operational
theater commander. In effect, however, he was not. General
William C. Westmoreland, COMUSMACV from 1964 until 1968,

explained the command and control arrangement from his own

perspective:

> I functioned not directly under the Joint Chiefs of
> Staff in Washington but through CINCPAC [Commander in
> Chief, Pacific]... That was the prescribed channel;
> but in practice the Joint Chiefs usually communicated
> directly with me while sending the same message to
> CINCPAC. I adhered to my chain of command and sent my
> messages to CINCPAC but occasionally sent information
> copies to the Joint Chiefs. The White House seldom
> dealt directly with me but through the Joint Chiefs.
>
> In view of this command arrangement, seeds of friction
> not unlike those that had plagued MacArthur and the
> Navy during World War II were present....
>
> What many failed to realize was that not I but CINCPAC
> was the theater commander in the sense that General
> Eisenhower ... was the theater commander in World War
> II. My responsibilities and prerogatives were
> basically confined within the borders of South Vietnam.
> [CINCPAC] commanded the Navy's Seventh Fleet, over
> which I had no control ... although I could coordinate
> strikes within South Vietnam by carrier-based aircraft.
> When the bombing of North Vietnam began, [CINCPAC]
> controlled that too, although I could claim priority on
> aircraft if a mission in South Vietnam was
> essential.... The big B-52 bombers that were later
> employed in South Vietnam were under [CINC], Strategic
> Air Command, but I was responsible for selecting
> targets for final approval by authorities in
> Washington....
>
> I had one outside responsibility at first, that of
> commanding the military assistance group in Thailand.
> I had to deal with policy matters affecting Thailand
> and Laos with the US Ambassadors.... Although gifted
> and dedicated men, they lacked full understanding of
> military requirements.... I often kidded them that the
> power they held had turned them into field marshals.
>
> My task would have been eased had I headed a 'Southeast
> Asia Command.'[1]

Regardless of the true command and control situation,

COMUSMACV was seen as the theater headquarters for all US forces

in the Vietnam area of operations as well as the operational headquarters for US Army forces in Vietnam.[22]

The net result of this complex and confusing command and control relationship was that COMUSMACV had too much responsibility and too little authority. Any one of his responsibilities would have been sufficient for a separate senior, yet subordinate commander. The commander, US Army, Vietnam (USARV), could have served as the operational headquarters for US Army forces, much like the Field Armies of World War II. Instead, USARV was a logistical headquarters, which was necessary but not sufficient for the command and control of a synchronized operational campaign.

By being responsible for so many activities, COMUSMACV could not focus his efforts on the prosecution of the war at the operational level according to a campaign plan. That such a plan never existed is perhaps proof positive of the chaos of the command and control system in Vietnam.

Another command and control issue in Vietnam was the provision of forces for prosecuting the war. As CINCPAC was, at least notionally, the Unified Commander responsible for the war effort, he was provided forces by each of the Services, as directed by law.[23] However, each Service Component commander was responsible for the training, administration, and logistical support of his own Service's forces. As a result, neither

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CINCPAC nor COMUSMACV could personally influence the command and control of their subordinate forces to the same extent as senior commanders of the past. Each Service had its own agenda, with authority at least equal to that of COMUSMACV. The US Army also contributed to the friction in command and control. General Westmoreland writes:

> Aware that my deputy might have to succeeed me, I resisted pressure from the Air Force for my deputy to be an air officer. Why place an air officer in a position where he might have to run what was essentially a ground war?[24]

The resultant lack of synchronization should not be surprising. Success in Vietnam depended upon more than just a ground war. It could only have been accomplished by a synchronized joint and combined effort.

Another example of the confused and unsynchronized command and control relationship during the Vietnam Conflict was the intelligence system. COMUSMACV should have been the coordinating intelligence center for the theater. Instead, each of several agencies, although working diligently, was simultaneously competing with the other agencies to see that its recommendations were the ones accepted, in Saigon, in Hawaii, and in Washington.[25] The result of this competition was confusion and overcontrol by several headquarters, which, because of poor unity of effort by the intelligence agencies, led to no control.

The United States lost the Vietnam Conflict because the

political and military leaders failed to link tactical engagements and battles to strategic objectives by an operational plan. The lack of synchronization at the operational level can be blamed in part on the failure of the command and control system.

A different, perhaps better way to attain effective command and control would have been to establish COMUSMACV as a theater commander, with command and control over all forces in the theater. Each of the Service Component Commanders would have then been placed OPCON to COMUSMACV, instead of acting as autonomous agents. Instead of being a subordinate commander to CINCPAC, and an equivalent commander with Air Force, Marine, and Navy component commanders, COMUSMACV would have been equal in status to CINCPAC, and the operational commander of the others, exercising bona fide command and control. Instead, he was often a manager, having to placate and coordinate rather than command.

An example of the management vice command is the number of general officers in Vietnam. By 1968, over 110 generals and admirals, 64 of them from the Army, spent much of their time coordinating.[25] The nature of the problem of synchronizing an operational campaign with that many senior officers is that:

> All were eager to help win the war by well-made
> plans and clever schemes, but none was empowered to
> decide - everything had to be mediated, compromised,
> and 'sold.' Such procedures are perfectly appropriate
> in the management of a well-established and very secure
> business corporation - a municipal gas company for

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example; they suit even better an amicable golf club.
Amidst the urgencies of war, they were tragically
inappropriate.[27]

The rationale for an actual theater commander is that the
component commanders subordinate to the theater commander know
more clearly who their boss is, and would not have to try to
please more than one commander simultaneously. Consequently, the
theater commander could spend his valuable time focusing on the
prosecution of the campaign instead of compromising to gain
consensus and managing the bureaucracy.

Failure to synchronize at the operational level can lose a
war. The United States lost the Vietnam Conflict. Lack of
effective command and control contributed significantly to the
lack of synchronization and ultimately this defeat.

COMMAND AND CONTROL DURING THE IRANIAN RESCUE MISSION

Another example of ineffective command and control which contributed to the failure of operational synchronization is the Iranian Rescue Mission in 1980. Command and control was an area which the subsequent investigation found to be lacking.[28]

President Carter assumed complete command and control of the mission.[29] However, this is once again a less than precise use of the term "command and control." What "command and control" in this context actually means is "responsibility." A president, or any leader, cannot exercise command and control of such a mission while sitting thousands of miles away. Rather, he must clearly state his strategic intent and let his military commanders exercise operational command and control. The military chain of command did not do this well.

The rescue was planned by an ad hoc committee over five months. Even though plans existed for rescue operations, a new plan was used to enhance operational security (OPSEC) and stop possible leaks to the news media. Nevertheless, command and control of the rescue force was fragmented from the start, with each service except the Navy providing its own command and control arrangements for its forces.[30] This prevented unity of command, and therefore precluded unity of effort. Confusion reigned.

For example, Marine and Air Force helicopter pilots worked for different "bosses." The helicopter pilots themselves thought they worked for a Marine colonel, but the commander of the task force thought all the pilots worked for an Air Force general officer. Simultaneously, the C-130 pilots worked for an Air Force officer, who also was assigned as the on-scene commander for the Desert One site. His assignment as on-site commander was not made until just prior to mission execution.[31]

This precarious situation bore its ugly fruit at Desert One, when not everyone knew this Air Force officer who was trying to exercise command and control at the site. Helicopter pilots and crews did not know who he was or what authority he had to tell them where to go or what to do. Among other things, this command and control confusion caused classified documents and other sensitive items to be left behind at Desert One. To exacerbate the helicopter pilots' confusion, their flight detachment commander was in one of the helicopters that did not arrive at Desert One.

Another example of the lack of synchronization is that the Iranian Rescue Mission had the capability for better integration and use of its communications systems than what was actually done. The helicopter pilots moving from the USS "Nimitz" to Desert One could not or would not talk to each other or the other rescue elements moving from the forward staging base. The

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assumption was that silence indicated everything was going smoothly. Mainly for OPSEC reasons, which the investigators discounted[32], the reluctance to both permit communications and to communicate when things went wrong, directly led to less synchronization and agility of the forces conducting the misson.

The Iranian Rescue Mission failure violated many of the tenets of effective command and control used by Napoleon, Rommel, Slim and others. Although the commander's intent was clear, i.e., rescue the hostages with minimum loss of life, the complexity of the operation, coupled with restrictive OPSEC requirements did not allow for the timely and accurate staff work which was normally expected or desired. These problems can be overcome in some cases. However, working as an ad hoc, compartmentalized, multi-service group does not enhance smooth flowing staff work. The layers of intermediate headquarters, with often incomplete, unclear instructions or uninformed interests, coupled with an unclear chain of command, detracted from command and control and thus agility and synchronization. This was especially true on-site at Desert One.

DISCUSSION OF ILLUSTRATIVE EXAMPLES II

The illustrative examples of operational command and control during the Vietnam Conflict and the Iranian Rescue Mission clearly indicate that most of the common threads identified in this monograph were violated.

There was no common cultural bias among the key leaders. Each of the Services was busy representing its own best interests. This parochialism contributed significantly to the lack of unity of effort in both Vietnam and Iran.

Simplicity is also missing from the two examples. A protracted war, changes in political leadership, and changing or nonattainable war aims complicated command and control during the Vietnam Conflict. During the Iranian Rescue Mission, a very complex plan was developed, but it was never fully exercised prior to the mission itself. Perhaps the plan could have been simplified had all the key participants been brought together to rehearse its execution.

Forward command is another thread which was violated. Rarely did operational level commanders get close to the action in Vietnam. Likewise, the operational level commander of the Iranian Rescue Mission was in a command and control aircraft,

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hundreds of miles away from the action in Iran.

That these violations occurred is not in and of itself bad, but that these violations were evident in the conduct of both a long term conflict and a short term raid are symptoms of a systemic failure. The results of both campaigns clearly show that ineffective command and control prevents agility and synchronization, contributing to operational failure.

IMPACT OF THE COMMON THREADS ON THE AIRLAND BATTLEFIELD

Can the common threads of command and control work on today's AirLand Battlefield? The answer is that they not only can but must. Our forces, outnumbered and with global commitments that span the spectrum of conflict, must be capable of the synchronization required for success. Effective command and control is imperative for operational synchronization. But how does the United States do this? The answer lies in taking the strengths of the great commanders of the past, learning from their weaknesses, and building a system of command and control which is founded upon a stable, yet flexible, common cultural bias.

This is obviously easier said than done, but the ability to implement such a recommendation currently exists in our military education and training system. Synergistic coordination (synchronization) of several systems and programs is required.

The basis for the implementation must be a stable doctrine, preferably shared, but at least compatible, among the Services. Army doctrine has changed dramatically twice since 1972. It is very difficult to achieve a common cultural bias and consistent understanding within a Service when its doctrine changes so frequently. To get agreement, compatibilty, and joint teamwork

on a frequently changing doctrine from other Services or allies is asking more than one could prudently expect.

Education and training of our commanders and staffs using the stable, compatible doctrine is the next logical step. The curriculum being used by the Army, using a common scenario throughout TRADOC schools, based upon AirLand Battle doctrine, is a good first step. This approach will eventually educate all officers in the fundamentals of AirLand Battle from the time they enter the Army through the School of Advanced Military Studies. However, close coordination and integration with non-TRADOC schools, such as the Army War College and the service schools of the other Services will be required before a common cultural bias at the joint (and thus operational) level can be achieved.

However the education system works, the key to mastery of the required skills is practice, practice, and more practice. Skills learned once and not practiced are soon forgotten. Commanders and staff officers must be given the opportunity to practice the warfighting skills acquired in the education and training system. A way to achieve this aim is to keep personnel in positions long enough to hone the necessary warfighting skills. An additional benefit of this added stability will be the enhancement of the Army's tactical proficiency as well as its operational agility and synchronization.

Although some progress is observable as the Army realizes

its needs to impart a common cultural bias to its officer corps, more is required. Change agents, those who are the "cutting edge" of change, need to acquire a common cultural bias of their own. Such programs e _he Advanced Military Studies Program are doing this. Other forums, such as the professional journals and the professional reading program, also serve to inform and thus educate the officer corps in the operational level of war.

None of the attempts to improve the command and control of the Army will work without top-down support for positive change. This is required at all levels of the Army. Subordinate commanders and staffs will be able to effectively respond to the inherent friction on the battlefield only when they receive a clear statement of intent from the commander. As the Japanese demonstrated to Slim in Burma, all the bravery in the world cannot overcome a rigid command and control system which emphasizes control and lacks flexibility. As the majority of operations will be either joint or combined, this is extremely important for our Services.

CONCLUSIONS

Synchronization of forces at the decisive point is the key to success on the battlefield. Effective command and control facilitates synchronization by allowing the commander's intent to be known, clearly understood, and violently executed by subordinates. When chance and friction occur on the battlefield, flexible command and control, based upon increased certainty, allows for initiative and rapid action.

The common threads of command and control can be identified in the historical accounts. The commanders of the past were able to use these threads, i.e., commander's intent, stability, flexibility, forward command, compatible doctrine, the innovative use of technology and techniques, simplicity, and common cultural bias to achieve unity of effort. By achieving unity of effort, they enhanced agility and synchronization of their forces. The evidence of the United States' ability to use these threads today indicates that there is much to be done before effective unity of effort is achieved.

Effective command and control can be achieved in a variety of ways. The key to success is to identify what resources it takes to do the job, and then how to mix the resources to achieve

the objective. Effective command and control, based upon stable, compatible doctrine, which is well understood by a stable officer corps, will lead to a common cultural bias which will enhance unity of effort, and thus, the nation's defense.

ENDNOTES

1. Carl von Clausewitz. On War. Translated and edited by Michael Howard and Peter Paret. (Princeton: Princeton University Press, 1976), p 75.

2. US Army. Field Manual 100-5, Operations. (Washington, DC: US Government Printing Office, 1986), p 16.

3. Martin L. van Creveld. Command in War. (Cambridge, MA: Harvard University Press, 1985), p 1.

4. US Army Command and General Staff College. Field Circular 101-55, Corps and Division Command and Control. (Fort Leavenworth, KS: US Army Command and General Staff College, 1985), p 3-1.

5. Ibid.

6. Ibid.

7. FM 100-5, p 23.

8. Ibid., p 175.

9. Ibid., p 17.

10. Charlie Beckwith and Donald Knox. Delta Force. (New York: Harcourt Brace Javanovich, 1983), pp 294-295.

11. Since modern is a value-laden term, a brief explanation is in order. Napoleon was modern in that he was the first to bring together the products of the industrial revolution, including the improved technological and transportation systems. See van Creveld, Command, pp 58-62.

12. Ibid., p 82.

13. Ibid., p 83.

14. Ibid., p 97.

15. Ibid., p 84.

16. Ibid., p 88.

17. David Irving. The Trail of the Fox. (New York: Avon Books, 1978), p 8.

18. Barrie Pitt. The Crucible of War: Western Desert 1941. (London: Jonathon Cape, 1980), p 241.

19.   Sir William Slim. Defeat Into Victory. (London: Cassell and Company, Limited, 1956), p 537.

20.   Parajutes were parachutes manufactured using the fibers from the Jute plant, which is similar to burlap.   Parajutes were used for airdropping bulk supplies to Slim's forces in the jungles. Slim's reward for this innovation was a rebuke from the Mininstry of Defence for not using proper supply channels. See Defeat Into Victory, pp 225-226.

21.   William C. Westmoreland. A Soldier Reports. (Garden City, NY: Doubleday and Company, 1976), pp 75-76.

22.   Bruce Palmer, Jr. The Twenty Five Year War.   (Lexington, KY: The University Press of Kentucky, 1984), p 194.

23.   Ibid., p 196.

24.   Westmoreland, A Soldier Reports, p 75.

25.   Palmer, The Twenty-Five Year War. p 195.

26.   Edward N. Luttwak, The Pentagon and the Art of War.   (New York: Simon and Schuster, 1985), p 28.

27.   Ibid.

28.   US Defense Department.   "Rescue Mission Report." (Hereinafter referred to as "Holloway Commission"), (Washington, DC: US Government Printing Office, 1980), Issue 2, pp 15-19 and Issue 21, pp 50-52.

29.   Paul B. Ryan. The Iranian Rescue Mission: Why It Failed. (Annapolis: Naval Institute Press, 1985), p 96.

30.   "Holloway Commission,"   p 15.

31.   Ibid., p 16.

32.   Ibid., p 48.

BIBLIOGRAPHY

Books

Barnet, Correlli. _The Desert Generals_. New York: Ballantine Books, 1972.

Chandler, David B. _The Campaigns of Napoleon_. New York: Macmillan Publishing Company, 1973.

Clausewitz, Carl. _On War_. Translated and edited by Michael Howard and Peter Paret. Princeton: Princeton University Press, 1976.

Craig, Gordon A. _The Politics of the Prussian Army_. New York: Oxford University Press, 1964.

Gabriel, Richard A. _Military Incompetence_. New York: Hill and Wang, 1985.

_____ and Savage, Paul L. _Crisis in Command._ New York: Hill and Wang, 1978.

Hittle, James D. _The Military Staff, Its History and Devlopment_. Harrisburg, PA: The Stackpole Company, 1961.

Horne, Alistair. _To Lose a Battle_. New York: Penguin Books, 1979.

Irving, David. _The Trail of the Fox_. New York: Avon Books, 1978.

Liddel Hart, Sir Basil H. _Strategy_. New York: The New American Library, 1974.

Lind, William S. _Maneuver Warfare Handbook_. Boulder, CO: Westview Press, 1985.

Luttwak, Edward N. _The Pentagon and the Art of War_. New York: Simon and Schuster, Inc., 1984.

Momyer, William W. _Air Power in Three Wars_. Washington, DC: US Government Printing Office, 1979.

Palmer, Bruce. _The Twenty-Five Year War_. Lexington, KY: The University Press of Kentucky, 1984.

Palmer, Dave R. _Summons of the Trumpet_. Novato, CA: Presidio Press, 1978.

Pitt, Barrie. _The Crucible of War_. London: Jonathon Cape, 1982.

BIBLIOGRAPHY, CONTINUED

Books, Continued

Ryan, Paul B. The Iranian Rescue Mission. Annapolis: Naval Institute Press, 1985.

Slim, Sir William. Defeat Into Victory. London: Cassell and Company, Limited, 1956.

Simpkin, Richard E. Race to the Swift. London: Brassey's Defence Publishers, 1985.

Summers, Harry. On Strategy. Novato, CA: Presidio Press, 1982.

Sun Tzu, The Art of War. Translated by Samuel B. Griffith. Oxford: Oxford University Press, 1963.

Van Creveld, Martin. Command in War. Cambridge, MA: Harvard University Press, 1985.

Westmoreland, William C. A Soldier Reports. Garden City, NY: Doubleday and Company, 1976.

Government Documents

Headquarters, Department of the Army. Field Manual 100-5, Operations. Washington, DC: US Government Printing Office, May 1986.

US Army Command and General Staff College. Field Circular 101-55, Corps and Division Command and Control. Fort Leavenworth, KS: US Army Command and General Staff College, February 1985.

US Defense Department. "Rescue Mission Report." Washington, DC: US Government Printing Office, 1980.

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